



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,034	03/10/2004	Toru Ito	119034	2116
25944	7590	11/13/2006	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			HO, BINH VAN	
			ART UNIT	PAPER NUMBER
			2163	

DATE MAILED: 11/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/796,034

Applicant(s)

ITO, TORU

Examiner

Binh V. Ho

Art Unit

2163

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03/10/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. Figures 9-11 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a **single paragraph** on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The

Art Unit: 2163

disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1-6, and 8-13; it is unclear what a word "it" refers to.

In claims 1, 4, 8, and 11, it is unclear what a word "there" refers to.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

With respect to claims 1-6, and 8-13, the claims are rejected under 35 U.S.C. 101 because the invention, as claimed, appears to be directed to merely an abstract idea. The examiner makes this assertion because the claims simply recites providing the dimension number, the n elements and the symbol with no attempt to tie all of the methods steps together in order to carry out a final, conclusionary method step of creating a table as cited in the preamble.

Since the claims presented by the applicant is simply a representation of an abstract idea, the claims are not covered by the statutory categories of patentable

subject matter set forth in 35 U.S.C. 101.

However, an abstract idea is categorized as one of three judicially created exceptions to patentable subject matter (the three exceptions are Laws of Nature, Natural Phenomena, and Abstract Idea). The courts have concluded that in order to patent one of the three judicial exceptions to the statutory categories of the invention the applicant must show that the claimed invention has a practical, real-world application that produces a useful, concrete, and tangible result (State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02).

In order to overcome this rejection, it is required that the applicant amend claims 1-6, and 8-13 provides a final, conclusionary step. This final step should tie together all previously recited method steps. Finally, the claimed invention as a whole must set forth a practical application of the invention, which provides a user, concrete, and tangible result. Correction of this deficiency is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Ito (JP 2000285101 A).

(Claims 1-6, and 8-13)

Ito discloses in figures 2, 7-18, a creation method of a table for searching for and creating an m-dimensional and n-order table in which on the basis of m (m is a natural number of 4 or larger) reference axes, a symbol $A=[a_1, a_2, \dots, a_n]$ of n (n is a natural number of 2 or larger) elements different from each other appears once in an axial direction of each of the m reference axes, the creation method of the table being characterized by comprising: a first step of setting the dimension number m and the order n, and determining and setting a permutation of the symbol A of the n elements and a selecting sequence in accordance with the permutation; a second step of, when one of the n elements is set as an array element at each position of the table, starting this setting from a first position of all the reference axes and successively performing it to a final position of all the reference axes, and selecting the symbol in the selecting sequence at each position so that it does not coincide with the symbol of the already determined array element at a line of former positions in each axial direction; and a third step of, when the symbol is selected in the selecting sequence at each position of the table so that it does not become coincident with the already determined array element at the line of the former positions in each axial direction, and when there is no symbol which can be selected at an arbitrary position, continuing selection and determination by replacing the symbol of the already determined array element at a position one before the arbitrary position by a selectable symbol lower in the selecting sequence than the symbol.

Art Unit: 2163

(Claims 1-6, and 8-13)

Ito discloses in figures 8-16, the table stored in the memory is stored as the table having an m-dimensional and n-order data structure in which a position of an array element on each axis of the table is assigned to the storage location with a serial number.


Inquiry

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh V. Ho whose telephone number is 571 272 8583. The examiner can normally be reached on M-F from 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don K. Wong can be reached on 571 272 1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Binh V Ho
Examiner
Art Unit 2163


DON WONG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100